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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,608	10/28/2003	Ajaykumar P. Idnani	CE10785R/10-186	6297

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POSZ LAW GROUP, PLC
11250 ROGER BACON DRIVE
SUITE 10
RESTON, VA 20190

EXAMINER

NG, CHRISTINE Y

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/695,608	Applicant(s) IDNANI ET AL.	
	Examiner Christine Ng	Art Unit 2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5-8, 10-15, 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,130,892 to Short et al.

Referring to claims 1 and 7, Short et al disclose in Figure 1 a host (nomadic router 10) in a visited subnet (communications device 14) configured to assist a mobile node MN (host device 12) that is assigned to a home subnet and in the visited subnet to transmit a packet, the MN being unaware that the MN is no longer in the home subnet.

Refer to Column 5, lines 32-51 and Column 6, lines 7-14. The host comprises:

A transceiver (Figure 2, network interface 10a) for communicating with the MN.

Refer to Column 5, lines 52-54.

A processor (Figure 2, processor consisting of hardware and/or software) coupled to the transceiver for controlling the host, wherein the processor is programmed to cooperate with the transceiver to (Refer to Column 5, lines 55-58):

Receive (Figure 8, Steps 2-3) from the MN an ARP Request to discover a first MAC address of a device (home gateway) in the home subnet, the ARP Request containing an IP address assigned to the device. Refer to Column 6, lines 7-14 and Column 11, line 59 to Column 12, line 10.

Determine (Figure 8, Step 3) that said IP address does not belong to the visited subnet. The nomadic router 10 receives the ARP request because the host device 12 is not in its home subnet. Refer to Column 6, lines 7-14 and Column 11, line 59 to Column 12, line 10.

Return (Figure 8, Steps 4-5) in response to determining that said IP address does not belong to the visited subnet, an ARP Response containing a second MAC address, which the MN will assume to be the MAC address of said device (home gateway) in the home subnet. Refer to Column 11, line 59 to Column 12, line 10.

Referring to claims 2, 10 and 14, Short et al disclose in Figure 1 that the host further comprises:

A network interface (Figure 2, network interface 10b) coupled to the processor for interfacing with a network (internet/intranet/subnet 14). Refer to Column 5, lines 54-55.

Wherein the processor is further programmed to cooperate with the transceiver (Figure 2, network interface 10a) and the network interface (Figure 2, network interface 10b) to:

Receive (Figure 9A, Steps 1-3), from the MN, the packet addressed to the second MAC address. Refer to Column 13, lines 38-52.

Reverse tunnel (Figure 9A, Steps 4-8) the packet to the home subnet. Refer to Column 13, line 53 to Column 14, line 22.

Referring to claims 3, 8 and 15, Short et al disclose in Figure 1 that the processor is further programmed to return a MAC address that is the MAC address of the host (nomadic router 10). The host (nomadic router 10) "receives this ARP request

broadcast and responds with its MAC address (not that of the destination node)"
(Column 11, lines 62-67).

Referring to claims 5, 11 and 17, Short et al disclose in Figure 1 that:

Wherein the visited subnet (communications device 14) comprises a wireless network (wireless LAN) and wherein the host (nomadic router 10) comprises a wireless access point (wireless router) of the visited subnet. Refer to Column 2, lines 52-62; Column 6, lines 28-32; Column 7, lines 38-48; and Column 15, lines 15-25.

Referring to claims 6, 12 and 18, Short et al disclose in Figure 1 that:

Wherein the visited subnet (communications device 14) comprises a wireline network (local networks, wide area networks, dial-up and direct internet connections) and wherein the host (nomadic router 10) comprises a server (wired router) in the visited subnet. Refer to Column 5, lines 32-63; Column 6, lines 28-32; and Column 15, lines 15-25.

Referring to claim 13, the nomadic router 10 can also be implemented as a software program comprising executable instructions. Refer to the rejection of claim 1; Column 2, lines 29-30 and lines 45-51; and Column 9, lines 36-48.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,130,892 to Short et al in view of U.S. Patent No. 6,795,857 to Leung et al.

Short et al do not disclose that the processor is further programmed to return a predetermined "dummy" MAC address that is not utilized elsewhere in the visited subnet.

Leung et al disclose in Figure 7 that when a node does not implement the Mobile IP Protocol, it cannot modify the foreign agent through which it sends and receives packets when the node moves to a different location. A virtual foreign agent is implemented to represent different foreign agents, so that the node appears to send a packet to only one foreign agent rather than several different ones. The foreign agents are each assigned the same dummy IP/MAC address that is "not used within the network and therefore is dedicated for the purpose of implementing the virtual agent". The foreign agents use this dummy address to assist the node in sending and receiving packets when it is outside of its home subnet. Refer to Column 13, line 53 to Column 15, line 38. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the processor is further programmed to return a predetermined "dummy" MAC address that is not utilized elsewhere in the visited subnet, the motivation being in order for a mobile node to use the dummy MAC address to transmit packets to its home subnet when it is in a visited subnet, the dummy MAC address being dedicated only to assisting the mobile node.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (571) 272-3124. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng ^w
March 8, 2005


RICKY NGO
PRIMARY EXAMINER 3/9/05